

REMARKS

The recitation in Claim 1 qualifying component B to be rubber-free is supported in page 8, line 11. To remove perceived confusion and address the rejection of the several claims under section 112 the subject matter to be deleted from Claims 1 and 4 is within double brackets.

The amendment is believed addressing the rejection under 35 U.S.C. 112 second paragraph and overcoming the same.

As presently amended the claimed invention is directed to a molding composition the components of which are limited to

- (A) a homopolycarbonate of a specified molecular weight and/or polyester carbonate,
- (B) a rubber-free (co)polymer based on any of vinyl aromatics, vinyl cyanides, unsaturated carboxylic acids and derivatives of unsaturated carboxylic acids,
- (C) silicone acrylate graft rubber,
- (D) glass fibers, and
- (E) optional conventional additives selected from the group consisting of lubricant, mold release agent, nucleating agent, dyes and pigments.

The inventive composition is characterized by its improved thermal aging. As evidenced by the working examples the combination of rubber-free vinyl copolymer (component B) with silicone-acrylate graft rubber (component C) significantly improves the thermal-aging of the inventive composition. A comparison between the inventive composition (examples 2 and 3) and a corresponding composition

(comparison example 1) where ABS replaced the silicone-acrylate graft rubber show the surprising and unexpected aging properties of the claimed composition. The following table is an extract of working examples reported in the application.

Examples	1 (comparison)	2	3
Elastic modulus, MPa	3590	3890	3850
Vicat B, °C	131	135	135
Izod Impact strength 0 hours @ room temperature	26	25	25
Izod Impact strength 250 hours @ 120°C	18	24	24
Izod Impact strength 750 hours @ 120°C	11	23	24
Izod Impact strength 1250 hours @ 120°C	9	23	24

Evaluated in terms of impact strength after exposure to 120°C the inventive composition clearly is superior to the comparative example. Moreover, in contrast to the comparative example the strengths of the inventive compositions are largely independent of the time of thermal exposure.

The claims were rejected as obvious over U.S. Patent 6,160,443 (Nodera).

Nodera disclosed a flame retardant composition containing

- (A) polycarbonate,
- (B) an optional styrenic resin,
- (C) a flame retardant,
- (D) an antistatic agent
- (E) an optional alkylene glycol, glycerin or their esters with fatty acids,
- (F) an optional fluoro-olefinic resin, and
- (G) an optional "rubber-like elastomer"

Included within Nodera's long list of species of component B are rubber-free polystyrene and grafted rubber such as HIPS and ABS. Also within the broad scope of Nodera's rubber-like elastomer component G, are silicone acrylate graft rubber (referred to in col.9, line 52 as Metablen S2001) and butadiene rubber grafted with styrene and acrylonitrile, that is ABS (column 9, line 33 and column 10, lines 8 and 14).

Nodera recognized nothing but equivalence between the numerous species within these components and cannot therefore be seen to have disclosed the combination of rubber-free (co)polymer of component B with the silicone acrylate graft rubber of component G, a combination shown above to demonstrate surprising and unexpected properties.

In rejecting the claims the Examiner points to the included Metablen in the referenced examples 5 and 6. HIPS (a polystyrene-grafted polybutadiene) is the exemplified species of Nodera's Component B. The exemplified combinations do not describe the invention as presently claimed.

Responding to the specific points raised by the Examiner - page 4 of the Action - Applicants note that:

(i) Nodera's HIPS does not describe the claimed component B as presently amended.

(ii) The experimental evidence shows that the combination of rubber-free SAN with silicone acrylate graft rubber (Metablen) - Examples 2 and 3 - is superior to the combination of ABS (Nodera's equivalent of Metablen) with SAN - Comparative Example 1. The present amendment renders irrelevant the compositional makeup of Nodera's examples.

In view of the amendment and the above remarks the rejection alleging obviousness over Nodera is believed addressed and its retraction is solicited.

Claims 1, 2, 4, 5 and 7-9 stand rejected under 35 U.S.C. 103(a) as unpatentable over J11349796 (the '796 document) in view of Nodera or U.S. Patent 5,807,914 to Obayashi (herein Obayashi).

The '796 document disclosed a composition that contains polycarbonate, a copolymer and a presently relevant graft copolymer. Importantly both "rubber-free" and "acrylate rubber-containing" copolymers are included in the referenced copolymer. Among its other attributes the composition is said to be "excellent in fluidity". Glass fibers that are essential to the inventive composition are not included in the referenced composition.

Nodera has been discussed above and its shortcomings in the present context were noted.

The '796 document and Nodera do not combine to describe the inventive composition as presently claimed because:

- (i) The '796 document makes no distinction between rubber-free and rubber containing copolymers. The combination of the '796 document with Nodera is not seen to address this shortcoming.
- (ii) The excellent fluidity that characterize the composition of the '796 document will be lost upon incorporating Nodera's glass fibers.
- (iii) For a rejection sounding in obviousness in view of a combination of references, something in the art taken as a whole must suggest the Applicant's claimed invention. See *In Re Dow Chemical* 837 F.2d 469, 5 USPQ 2d 1529 1532 (Fed. Cir. 1988) Further, the mere fact that the prior art could be modified does not make the

modification obvious unless the prior art includes a suggestion as to the desirability of the modification. *In re Gordon* 221 USPQ 1125, 1127 (Fed. Cir. 1984). While components of the claimed invention are in fact mentioned in the '796 document and in Nodera, no suggestion is found in the record to combine these components in a manner describing the present invention. In the absence of a suggestion to combine these, the rejection thus predicated is legally untenable. Applicants have earlier asserted that since the art skilled recognizes that including glass fibers in an "excellently fluid" composition is certain to detract from its fluidity and that there is therefore no rational basis to modify the '796 composition by adding Nodera's, or for that matter any other's glass fibers.

(iv) Contrary to the Examiner's contention, the record in fact includes evidence (Dr. Eckel's declaration, submitted August 3, 2005) pointing to the significant increase in shear viscosity of a relevant composition upon the inclusion of glass fibers.

- In this connection and for the record, evidence presented by Applicants and their arguments in the course of prosecution include no reference to "intractable or unprocessable" composition to be expected from the inclusion of glass fibers in the '796 composition. Applicants did point to the inclusion of glass fibers in the '796 composition is contrary to its inventive "excellent" fluidity.

- Further in this connection Examiner's assertion that the "inclusion of glass fibers would not have been expected to render the J'796 unsatisfactory for its intended purpose" is neither supported nor presently meaningful. What is the factual/rational basis for the purported "tolerance" of "some decrease in flow rate"? Applicants submit that a composition selected, at least in part, for its fluidity does not invite modification known to detract from this selection criterion.

Lastly in this connection, Applicants fail to appreciate Examiner's statement to the effect that "applicant allows for small amounts of fiber (0.4 parts). Such small amounts would have a corresponding small effect on viscosity" (emphasis added).

At issue is the increased viscosity of an excellently fluid composition that is certain to result upon the inclusion of glass fibers. Since Applicants' inventive composition is not touted on the basis of its fluidity, the relevance of Examiner's statement is not at all clear.

Reconsideration of the rejection under section 103 over the '796 document in view of Nodera and its retraction are solicited.

Obayashi disclosed a glass fiber reinforced composition that contains polycarbonate, a polycarbonate oligomer, glass fibers and a presently relevant silicone acrylate graft rubber copolymer.

The '796 document has been discussed above.

Combining the components of these documents amounts to adding glass fibers to the "excellently" fluid composition disclosed in the '796 document. This has been discussed above as in conflict with the purpose of the '796 document and militates against the combination. Moreover, the combination that would include a polycarbonate oligomer does not describe the claimed invention that effectively excludes such component. Lastly, as was argued above, the '796 document makes no distinction between rubber-free and rubber-containing polymer (component B).

Reconsideration of the rejection over the '796 document in view of Obayashi and its retraction are solicited.

Claims 1, 2, 4, 5 and 7-9 stand rejected under 35 U.S.C. 103(a) as obvious over JP 08269314 (the '314 document) in view of Nodera or Obayashi. The '314 document disclosed a composition containing polycarbonate, a (meth)acrylic resin and a composite rubber graft copolymer.

As presently clarified component B of the claimed composition avoids the (meth)acrylic resins of the '314 document. The rejections over the combination of the '314 document with either secondary document are believed addressed and overcome by the amendment.

Believing the above represent a complete response to the Office Action and that the application is in condition for allowance, Applicants request the earliest issuance of an indication to this effect.

Respectfully submitted,

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